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Schneider

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(54) **METHODS AND APPARATUS FOR
ASSEMBLING REFASTENABLE
ABSORBENT ARTICLES**

(58) **Field of Classification Search**

None

See application file for complete search history.

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(56) **References Cited**

U.S. PATENT DOCUMENTS

3,848,594 A 11/1974 Buell
4,662,875 A 5/1987 Hirotsu et al.
4,846,815 A 7/1989 Scripps
(Continued)

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OTHER PUBLICATIONS

PCT International Search Report dated Sep. 11, 2014, 9 pages.

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(57) **ABSTRACT**

A method for assembling pre-fastened refastenable absorbent articles includes advancing discrete chassis in a machine direction such that the lateral axis is parallel with the machine direction. The chassis defines a first waist region and a longitudinally opposed second waist region separated by a central region. A first web advances in the machine direction and is combined with a discrete fastener component having a refastenable element. The discrete chassis are combined with the first web in the first waist region of the chassis. The second waist region of the discrete chassis is combined with a second web advancing in the machine direction. The chassis are folded and the first and second webs are joined together. The discrete fastener component is permanently connected with the second web. The absorbent article is cut along the discrete fastener component to create discrete, pre-fastened refastenable absorbent articles.

15 Claims, 21 Drawing Sheets

